Sheng-Rui Jian

List of Publications by Year
in descending order

94 papers	3,672 citations	236925 25 h-index	133252 59 g-index
95 all docs	95 docs citations	95 times ranked	5992 citing authors

#	Article	IF	Citations
1	Indentation-Induced Mechanical Deformation Behaviors of AlN Thin Films Deposited onc-Plane Sapphire. Journal of Nanomaterials, 2012, 2012, 1-6.	2.7	1,686
2	Nanoindentation identifications of mechanical properties of Cu6Sn5, Cu3Sn, and Ni3Sn4 intermetallic compounds derived by diffusion couples. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 485, 305-310.	5.6	144
3	The High Temperature Tensile and Creep Behaviors of High Entropy Superalloy. Scientific Reports, 2017, 7, 12658.	3.3	136
4	Berkovich nanoindentation and deformation mechanisms in GaN thin films. Applied Surface Science, 2008, 254, 1997-2002.	6.1	104
5	Nanoindentation-induced phase transformation in (110)-oriented Si single-crystals. Current Opinion in Solid State and Materials Science, 2010, 14, 69-74.	11.5	63
6	Berkovich Nanoindentation on AlN Thin Films. Nanoscale Research Letters, 2010, 5, 935-940.	5.7	59
7	Mechanical Deformation Induced in Si and GaN Under Berkovich Nanoindentation. Nanoscale Research Letters, 2008, 3, .	5.7	56
8	Effects of post-annealing on the structural and nanomechanical properties of Ga-doped ZnO thin films deposited on glass substrate by rf-magnetron sputtering. Applied Surface Science, 2011, 258, 1261-1266.	6.1	56
9	Characteristics of ZnO thin films prepared by radio frequency magnetron sputtering. Microelectronics Reliability, 2008, 48, 389-394.	1.7	54
10	Analysis of physical properties of III-nitride thin films by nanoindentation. Journal of Electronic Materials, 2003, 32, 496-500.	2.2	50
11	Atomic-level simulations of nanoindentation-induced phase transformation in mono-crystalline silicon. Applied Surface Science, 2007, 254, 1415-1422.	6.1	50
12	Cross-sectional transmission electron microscopy observations on the Berkovich indentation-induced deformation microstructures in GaN thin films. Journal Physics D: Applied Physics, 2007, 40, 3985-3990.	2.8	48
13	Mechanical Properties of Cu2O Thin Films by Nanoindentation. Materials, 2013, 6, 4505-4513.	2.9	48
14	Surface Morphological and Nanomechanical Properties of PLD-Derived ZnO Thin Films. Nanoscale Research Letters, 2008, 3, .	5.7	41
15	Structural and nanomechanical properties of BiFeO3 thin films deposited by radio frequency magnetron sputtering. Nanoscale Research Letters, 2013, 8, 297.	5.7	37
16	Nanomechanical and Material Properties of Fluorine-Doped Tin Oxide Thin Films Prepared by Ultrasonic Spray Pyrolysis: Effects of F-Doping. Materials, 2019, 12, 1665.	2.9	36
17	Enhanced visible photoluminescence from ultrathin ZnO films grown on Si-nanowires by atomic layer deposition. Nanotechnology, 2010, 21, 385705.	2.6	34
18	Cross-sectional transmission electron microscopy observations of structural damage in Al0.16Ga0.84N thin film under contact loading. Journal of Applied Physics, 2008, 103, 033503.	2.5	32

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19	Nanoindentation-induced interfacial fracture of ZnO thin films deposited on Si(111) substrates by atomic layer deposition. Journal of Alloys and Compounds, 2014, 587, 313-317.	5.5	31
20	Berkovich indentation-induced deformation behaviors of GaN thin films observed using cathodoluminescence and cross-sectional transmission electron microscopy. Applied Surface Science, 2008, 254, 6749-6753.	6.1	30
21	High temperature creep properties of directionally solidified CM-247LC Ni-based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 655, 237-243.	5.6	30
22	Nanomechanical characterizations of InGaN thin films. Applied Surface Science, 2006, 252, 3033-3042.	6.1	29
23	Mechanical properties of the hexagonal HoMnO3 thin films by nanoindentation. Journal of Alloys and Compounds, 2010, 508, 523-527.	5.5	29
24	Deformation behaviors of InP pillars under uniaxial compression. Applied Physics Letters, 2012, 101, .	3.3	28
25	Nanoindentation of Bi2Se3 Thin Films. Micromachines, 2018, 9, 518.	2.9	28
26	Nanoindentation-Induced Structural Deformation in GaN/AlN Multilayers. Nanoscience and Nanotechnology Letters, 2010, 2, 315-321.	0.4	28
27	Nanomechanical properties of AlN(103) thin films by nanoindentation. Journal of Alloys and Compounds, 2010, 494, 219-222.	5.5	27
28	Surface Analysis and Optical Properties of Cu-Doped ZnO Thin Films Deposited by Radio Frequency Magnetron Sputtering. Coatings, 2018, 8, 266.	2.6	26
29	Berkovich nanoindentation on InP. Journal of Alloys and Compounds, 2009, 482, 498-501.	5.5	25
30	Nanomechanical properties of Bi2Te3 thin films by nanoindentation. Journal of Alloys and Compounds, 2015, 619, 834-838.	5.5	25
31	Dislocation Energetics and Pop-Ins in AlN Thin Films by Berkovich Nanoindentation. Materials, 2013, 6, 4259-4267.	2.9	24
32	Nanoindentation on a-plane ZnO thin films. Journal of Alloys and Compounds, 2009, 479, 348-351.	5.5	23
33	An assumed mode method and finite element method investigation of the coupled vibration in a flexible-disk rotor system with lacing wires. Journal of Mechanical Science and Technology, 2017, 31, 577-586.	1.5	23
34	Mechanical properties of InGaN thin films deposited by metal-organic chemical vapor deposition. Materials Chemistry and Physics, 2008, 109, 360-364.	4.0	22
35	Deep-UVsensors based on SAW oscillators using low-temperature-grown AlN films on sapphires. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1688-1693.	3.0	20
36	Structural and nanomechanical properties of a-plane ZnO thin films deposited under different oxygen partial pressures. Current Applied Physics, 2012, 12, 849-853.	2.4	20

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37	Nanoindentation pop-in effects of Bi2Te3 thermoelectric thin films. Journal of Alloys and Compounds, 2015, 622, 601-605.	5.5	20
38	Nanomechanical and wettability properties of Bi2Te3 thin films: Effects of post-annealing. Journal of Applied Physics, 2017, 121, 175302.	2.5	19
39	Mechanical Characteristics of Mg-Doped GaN Thin Films by Nanoindentation. Nanoscience and Nanotechnology Letters, 2012, 4, 598-603.	0.4	19
40	Nanomechanical, structural, and transport properties of Bi3Se2Te thin films. Journal of Alloys and Compounds, 2016, 679, 350-357.	5.5	18
41	High pressure induced phase transition in sulfur doped indium phosphide: An angular-dispersive X-ray diffraction and Raman study. Solid State Communications, 2009, 149, 136-141.	1.9	17
42	A study of the relationship between semi-circular shear bands and pop-ins induced by indentation in bulk metallic glasses. Intermetallics, 2010, 18, 1572-1578.	3.9	17
43	Nanomechanical properties of GaSe thin films deposited on Si(111) substrates by pulsed laser deposition. Journal of Alloys and Compounds, 2012, 542, 124-127.	5.5	17
44	Pop-in effects and dislocation nucleation of c-plane single-crystal ZnO by Berkovich nanoindentation. Journal of Alloys and Compounds, 2015, 644, 54-58.	5.5	17
45	Reduction of Photoluminescence Quenching by Deuteration of Ytterbium-Doped Amorphous Carbon-Based Photonic Materials. Materials, 2014, 7, 5643-5663.	2.9	16
46	Effects of Thermal Annealing on the Structural, Electrical and Mechanical Properties of Al-Doped ZnO Thin Films Deposited by Radio-Frequency Magnetron Sputtering. Science of Advanced Materials, 2013, 5, 7-13.	0.7	16
47	Morphological, structural, and mechanical characterizations of InGaN thin films deposited by MOCVD. Journal of Alloys and Compounds, 2008, 463, 533-538.	5.5	15
48	Mechanical responses of single-crystal ZnO. Journal of Alloys and Compounds, 2010, 494, 214-218.	5.5	15
49	Nanoindentation responses of InN thin films. Journal of Alloys and Compounds, 2014, 609, 125-128.	5.5	14
50	Nanoindentation of GaSe thin films. Nanoscale Research Letters, 2012, 7, 403.	5.7	13
51	Nanoindentation-Induced Pop-In Effects in GaN Thin Films. IEEE Nanotechnology Magazine, 2013, 12, 304-308.	2.0	13
52	Nanoindentation of Mg-doped AlGaN thin films. Journal of Alloys and Compounds, 2014, 593, 220-223.	5.5	13
53	The deformation behavior and fracture toughness of single crystal YSZ(111) by indentation. Journal of Alloys and Compounds, 2018, 735, 2423-2427.	5.5	13
54	Berkovich nanoindentation-induced dislocation energetics and pop-in effects in ZnSe thin films. Journal of Alloys and Compounds, 2014, 590, 153-156.	5.5	12

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55	Localized Deformation and Fracture Behaviors in InP Single Crystals by Indentation. Micromachines, 2018, 9, 611.	2.9	11
56	Annealing-Driven Microstructural Evolution and Its Effects on the Surface and Nanomechanical Properties of Cu-Doped NiO Thin Films. Coatings, 2019, 9, 107.	2.6	11
57	Nanomechanical Characteristics and Deformation Behaviors of ZnSe Thin Films by Nanoindentation. Science of Advanced Materials, 2014, 6, 617-622.	0.7	11
58	Field emission characteristics of carbon nanotubes post-treated with high-density Ar plasma. Applied Surface Science, 2010, 256, 2184-2188.	6.1	10
59	Cathodoluminescence rosettes in c-plane GaN films under Berkovich nanoindentation. Optical Materials, 2013, 35, 2707-2709.	3.6	10
60	Effects of H2 plasma pretreated Ni catalysts on the growth of carbon nanotubes. Materials Chemistry and Physics, 2009, 115, 740-743.	4.0	9
61	Effects of Cu doping on the structural and nanomechanical properties of ZnO thin films. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	9
62	Effect of intrinsic decoherence on entanglement of three polar molecules with two-dimensional rotation. European Physical Journal D, 2019, 73, 1.	1.3	9
63	Influence of Mg-containing precursor flow rate on the structural, electrical and mechanical properties of Mg-doped GaN thin films. Materials Chemistry and Physics, 2012, 136, 796-801.	4.0	8
64	Effects of Stoichiometry on Structural, Morphological and Nanomechanical Properties of Bi2Se3 Thin Films Deposited on InP(111) Substrates by Pulsed Laser Deposition. Coatings, 2020, 10, 958.	2.6	8
65	Scanned Probe Oxidation on p-GaAs(100) Surface with an Atomic Force Microscopy. Nanoscale Research Letters, 2008, 3, 249-254.	5.7	7
66	Cross-sectional transmission electron microscopy studies for deformation behaviors of AlN thin films under Berkovich nanoindentation. Journal of Alloys and Compounds, 2010, 504, S395-S398.	5.5	7
67	On the use of new oxidized Coâ€“Crâ€“Ptâ€“O catalysts for vertically-aligned few-walled carbon nanotube forest synthesis in electron cyclotron resonance chemical vapor deposition. Carbon, 2014, 80, 808-822.	10.3	6
68	The Effect of Ag Addition on the Enhancement of the Thermal and Mechanical Properties of CuZrAl Bulk Metallic Glasses. Metals, 2016, 6, 216.	2.3	6
69	Effects of annealing temperature on nanomechanical and microstructural properties of Cu-doped In2O3 thin films. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	6
70	Nanomechanical properties and fracture toughness of Bi 3 Se 2 Te thin films grown using pulsed laser deposition. Materials Chemistry and Physics, 2016, 182, 72-76.	4.0	5
71	Influence of Post-Annealing on the Structural and Nanomechanical Properties of Co Thin Films. Micromachines, 2020, 11, 180.	2.9	5
72	Erbium-Doped Amorphous Carbon-Based Thin Films: A Photonic Material Prepared by Low-Temperature RF-PEMOCVD. Materials, 2014, 7, 1539-1554.	2.9	4

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73	In-situ doping of erbium in hydrogenated amorphous carbon by low temperature metalorganic radio frequency plasma enhanced chemical vapor deposition. Thin Solid Films, 2014, 570, 429-435.	1.8	4
74	The Indentation-Induced Pop-in Phenomenon and Fracture Behaviors of GaP(100) Single-Crystal. Micromachines, 2019, 10, 752.	2.9	4
75	Nanotribological Characteristics of Cu6Sn5, Cu3Sn, and Ni3Sn4 Intermetallic Compounds. Journal of Electronic Materials, 2009, 38, 810-814.	2.2	3
76	Structural properties of pressure-induced structural phase transition of Si-doped GaAs by angular-dispersive X-ray diffraction. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	3
77	Deformation behaviors of Au nanotubes under torsion by molecular dynamics simulations. AIP Advances, 2018, 8, 085204.	1.3	3
78	Numerical Analysis of the Welding Behaviors in Micro-Copper Bumps. Metals, 2021, 11, 460.	2.3	3
79	Nanomechanical Properties and Fracture Behaviors of Ba1â€“xKxCe0.6Zr0.2Y0.2O3â€“Î´ Electrolytes by Nanoindentation. Science of Advanced Materials, 2014, 6, 1691-1696.	0.7	3
80	Nanomechanical Properties and Fracture Behaviors of Bi₃Se₂Te Thin Films by Nanoindentation. Science of Advanced Materials, 2017, 9, 1877-1881.	0.7	3
81	Van der Waals Epitaxial Growth of ZnO Films on Mica Substrates in Low-Temperature Aqueous Solution. Coatings, 2022, 12, 706.	2.6	3
82	Effects of Substrate Temperature on Nanomechanical Properties of Pulsed Laser Deposited Bi2Te3 Films. Coatings, 2022, 12, 871.	2.6	3
83	Mechanical Properties of Cu<inf>6</inf>Sn<inf>5</inf>, Cu<inf>3</inf>Sn, and Ni<inf>3</inf>Sn<inf>4</inf> Intermetallic Compounds Measured by Nanoindentation. , 2007, , .		2
84	Nanomechanical properties of FePtPd ternary alloy thin films. Thin Solid Films, 2009, 517, 4883-4887.	1.8	2
85	Identification of mechanical properties of Cu<inf>6</inf>Sn<inf>5</inf>, Cu<inf>3</inf>Sn, and Ni<inf>3</inf>Sn<inf>4</inf> intermetallic compounds using nanoindentation. , 2007, , .		1
86	Microcosmic mechanisms of Cu to Cu bonding by molecular dynamic simulation. , 2017, , .		1
87	Fabrication of Carboxylated Carbon Nanotube Buckypaper Composite Films for Bovine Serum Albumin Detection. Coatings, 2022, 12, 810.	2.6	1
88	Characterizations of ZnO thin films deposited onto langasite substrates by r.f. magnetron sputtering. , 2007, , .		0
89	Identifications of Nanomechanical Properties of Cu-Sn Crystalline Phases. , 2007, , .		0
90	Experimental and Molecular Dynamics Investigations of Nanoindentation-induced Phase Transformations in Monocrystalline Silicon. , 2008, , .		0

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91	Nanotribological Characteristics of Cu<inf>6</inf>Sn<inf>5</inf>, Cu<inf>3</inf>Sn, and Ni<inf>3</inf>Sn<inf>4</inf> Intermetallic Compounds Developed by Diffusion Couples. , 2008, , .		0
92	Deep UV sensors using surface acoustic wave oscillators fabricated on single crystalline AlN films grown on sapphire substrates. , 2010, , .		0
93	Synthesis and characterization of polydopamine modified carbon nanotube (CNT)/polydimethylsiloxane (PDMS) composites. , 2015, , .		0
94	EFFECTS OF THE BUFFER LAYERS ON THE ADHESION AND ANTIMICROBIAL PROPERTIES OF THE AMORPHOUS ZrAlNiCuSi FILMS. , 2011, , .		0